

## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address C. MIMISSI NERCOF PATENTS AND TRADEMARKS Woodington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,875	12/10/1999	DAVID J. KELLER	99-0738	9389

07-16-2002

KEVIN D MARTIN MAIL STOP 525 MICRON TECHNOLOGY INC 8000 S FEDERAL WAY BOISE, ID 83706-9632

EXAMINER GOUDREAU, GEORGE A

ART UNIT PAPER NUMBER 7

1763

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

	ation No. Applicant(s)
Office Action Summary	iner Goudrem 1763
-The MAILING DATE of this communication appears on the	cover sheet beneath the correspondence address—
Period for Reply	MONTH(S) FROM THE MAILING DATE
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIR OF THIS COMMUNICATION.	
<ul> <li>OF THIS COMMUNICATION.</li> <li>Extensions of time may be available under the provisions of 37 CFR 1.136(a). from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days, a reply with</li> <li>If NO period for reply is specified above, such period shall, by default, expire</li> <li>Failure to reply within the set or extended period for reply will, by statute, cau</li> <li>Any reply received by the Office later than three months after the mailing date term adjustment. See 37 CFR 1.704(b).</li> </ul>	in the statutory minimum of thirty (30) days will be considered timely.  SIX (6) MONTHS from the mailing date of this communication.  se the application to become ABANDONED (35 U.S.C. § 133).  e of this communication, even if timely, may reduce any earned patent
Status  Responsive to communication(s) filed on	2/
Responsive to communication(s) filed on	
☐ Since this application is in condition for allowance except for for accordance with the practice under Ex parte Quayle, 1935 C.D.	
Disposition of Claims Claim(s) 1 2 1 - 23 25 - 26 - Of the above claim(s)	is/are pending in the application.
(Claim(s) (-19, d - 2) 23	is/are withdrawn from consideration.
Of the above claim(s)	is/are allowed.
Claim(s) 1-19, 21-23, 25-26	is/are rejected.
Claim(s)	is/are objected to.
☐ Claim(s)	are subject to restriction or election
	is approved disapproved.
The proposed drawing correction, filed on	
The proposed drawing correction, filed on	by the Examiner
<ul> <li>□ The proposed drawing correction, filed on is/are objected to</li> <li>□ The drawing(s) filed on is/are objected to</li> <li>□ The specification is objected to by the Examiner.</li> </ul>	by the Examiner
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<ul> <li>□ The proposed drawing correction, filed on</li></ul>	o by the Examiner - 35 U.S.C. § 119 (a)-(d).
<ul> <li>☐ The proposed drawing correction, filed on</li> <li>☐ The drawing(s) filed on</li> <li>☐ The specification is objected to by the Examiner.</li> <li>☐ The oath or declaration is objected to by the Examiner.</li> <li>Priority under 35 U.S.C. § 119 (a)-(d)</li> <li>☐ Acknowledgement is made of a claim for foreign priority under</li> <li>☐ All ☐ Some* ☐ None of the:</li> </ul>	o by the Examiner 35 U.S.C. § 119 (a)–(d).
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15. Claims 21, 23, and 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-Claim 21 depends upon canceled claim 20. (Claim 21 should depend upon claim 19.); and

-In line 7 of claim 23, the phrase "an oxygen flow rate of between about 35" should read "a flow rate of between about 35".

- 16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 17. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amini et. al. as applied in paragraph 17 of the previous office action.
- 18. Claims 1-9, 11, 23, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shwartzman et. al. as applied in paragraph 18 of the previous office action.
- 19. Claims 1-19, 21-23, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rizzuto as applied in paragraph 19 of the previous office action.

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20. Applicant's arguments filed 4-30-02' have been fully considered but they are not persuasive.

Applicant argues the following points regarding the examiner's rejection of their claimed subject matter.

-The prior art used by the examiner to reject applicant's claimed subject matter fails to teach etch processes which employ the specific process parameters which are claimed by the applicant. (Applicant seems to be trying to argue that their claimed etch process parameters represent a showing of unexpected results which the prior art of record fails to teach.); and

-Claim 26 as now amended uses "consisting essentially of" claim language which would preclude the presence of the He used in the plasma etchant taught by Shwartzman et. al.; The examiner must disagree.

-It is irrelevant that the prior art of record is silent in regards to many of the claimed etch process parameters of applicant since applicant has failed to make a proper showing of unexpected results in regards to these claimed etch process parameters. The examiner must remind applicant that in order to obtain benefit of a showing of unexpected results as related to claimed etch process parameters, applicant must do two things. First, applicant needs to establish what the ranges are for each etch process parameter in which unexpected results occur. Second, applicant must claim their claims commensurate in

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scope with any showing of unexpected results. Applicant has failed to do either of these things.; and

-In regards to applicant's usage of the phrase "consisting essentially of" in claim 26 as now amended in order to preclude the presence of He in their claimed etchant, the examiner has the following comments to make. In order to establish which compounds may or may not be present in a plasma etchant which is described using the phrase "consisting essentially of", applicant needs to define what the basic, and novel characteristics of their invention are. This is necessary in order to establish which compounds may be additionally present in applicant's claimed etchant without effecting the basic, and novel characteristics, and which compounds may not be present since they effect the basic, and novel characteristics of the invention. Applicant has failed to do such. Thus, it is unclear to the examiner what the scope of the term "consisting essentially of" is in claim 26. Thus, the examiner will interpret this phrase to have the same scope of the term "comprising". Further, applicant claims, and specification teach that He may be optionally present with O2 in their plasma etchant. Thus, it would appear to the examiner that applicant's claims, and specification teach that He does not effect the basic, and novel characteristics of their invention. Thus, the phrase "consisting essentially of" would not seem to preclude the presence of He in applicant's claimed plasma etchant contrary to what applicant purports. Further, the examiner cites the following case law of interest to the applicant in this regard.

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"A consisting essentially of claim occupies a middle ground between closed claims that are written in a consisting of format and fully open claims that are drafted in a comprising format." PPG Industries v. Guardian Industries, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998).

For search and examination purposes, absent a clear indication in the specification of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ at 1355 ("PPG could have defined the scope of the phrase consisting essentially of for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention."). When an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner George A. Goudreau whose telephone number is (703) -308-

1915. The examiner can normally be reached on Monday through Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Examiner Gregory Mills, can be reached on (703) -308-1633. The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) -306-3186.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) -308-0661.

George)A. Goudreau/gag

Primary Examiner

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